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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/821,062	04/07/2004	Jin Yeol Kim	20040-00013	9643

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EXAMINER

ZACHARIA, RAMSEY E

ART UNIT PAPER NUMBER

1773

DATE MAILED: 10/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/821,062

Applicant(s)

KIM ET AL.

Examiner

Ramsey Zacharia

Art Unit

1773

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 31 July 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 2-15 is/are pending in the application.
- 4a) Of the above claim(s) 6-11 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2-5 and 12-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

#### ***Election/Restrictions***

2. Claims 6-11 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 22 October 2006.

#### ***Claim Rejections - 35 USC § 103***

3. Claims 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yasunori et al. (JP 05-307,104) in view of Fujimaki et al. (US 6,191,837 B1).

Yasunori et al. teach a filter comprising a transparent plastic film, a hardened film, and an antireflection layer over the hardened film (paragraph 0004). The filter comprises part of a polarizing plate used in a liquid crystal display to provide the display with an acid-resisting function (paragraph 0010). In the embodiment of the example, the substrate is first coated with a hard-coating agent followed by an antireflection layer which is composed of three layers including a titanium oxide layer (i.e. a high refractive layer) and a silicon oxide layer (i.e. a low refractive layer) (paragraph 0012).

Art Unit: 1773

Yasunori et al. do not teach the presence of a conductive polymer layer comprising a polymer for formula (1) as recited in instant claim 12.

Fujimaki et al. teach the application of an electroconductive film to a liquid crystal display to prevent static electricity from exerting undesirable effects on the display (column 5, line 57-column 6, line 13). The electroconductive film may comprise a polythiophene having a structure that reads on formula (1) of instant claims 2 and 4 wherein X is S and R<sub>1</sub> and R<sub>2</sub> together form a cyclic structure containing hydrocarbon together with at least one O atom (column 6, lines 40-55). In one embodiment, the electroconductive film is formed on the polarizing plate of the liquid crystal display (Figure 2 and column 12, lines 42-46).

One skilled in the art would be motivated to provide the polarizing plate taught by Yasunori et al. with an electroconductive film as taught by Fujimaki et al. to provide the resulting article with protection from the effects of static electricity.

4. Claims 2-5, 14, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yasunori et al. (JP 05-307,104) in view of Fujimaki et al. (US 6,191,837 B1) as applied to claims 12 and 13 above, and further in view of Hsu et al. (US 2005/0224765 A1).

Yasunori et al. taken in view of Fujimaki et al. teach all the limitations of claims 2-5, 14, and 15, as outlined above, except for the use of the conductive polymer of claims 2 and 4, and specifically claims 14 and 15.

Hsu et al. teach a composition comprising a conductive polymer such as polythiophene or polypyrrole (paragraph 0006). In one embodiment, the polythiophene is the same material used by Fujimaki et al. (paragraph 0030 where m is 2). The polypyrrole (represented by formula II in

Art Unit: 1773

paragraph 0031) reads on the material of formula (1) in claims 2 and 4, wherein X is NH (since R<sup>2</sup> of Hsu et al. may be hydrogen). Moreover, the R<sup>1</sup> substituents taken together may form a ring containing sulfur (paragraph 0034). The composition of Hsu et al. may be used for antistatic films (paragraph 0088).

Hsu et al. show that the polythiophene of Fujimaki et al. and a polypyrrole having substituents that may form a ring containing sulfur is known in the art as a functionally equivalent materials for antistatic film applications. Therefore, because these two materials were art-recognized equivalents at the time the invention was made, one of ordinary skill in the art would have found it obvious to substitute a polypyrrole having substituents that may form a ring containing sulfur for the polythiophene of Fujimaki et al.

It is noted that the formula (II) for polypyrrole in paragraph 0031 of Hsu et al. fails to include a nitrogen atom at the 1 position of the 5-member ring. This is a clear typographical error; by definition polypyrroles have a nitrogen at the 1 position of the ring. This is further evidenced by the specification filed by Hsu et al. which correctly depicts a nitrogen at the 1 position of the ring.

### *Response to Arguments*

5. Applicant's arguments with respect to claims 2-5 have been considered but are moot in view of the new ground(s) of rejection.

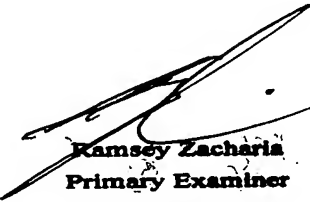
Art Unit: 1773

***Conclusion***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ramsey Zacharia whose telephone number is (571) 272-1518. The examiner can normally be reached on Monday through Friday from 9 to 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol Chaney, can be reached at (571) 272-1284. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



**Ramsey Zacharia**  
**Primary Examiner**  
**Tech Center 1700**